

**REMARKS**

This is in reply to the second Office Action dated June 15, 2004. By this Amendment claims 3, 6, 7, and 15 have been amended. New claims 17 - 24 have been added.

It is submitted that the grounds for withdrawing this application from issue are insufficient for the reasons discussed below. The Examiner is therefore respectfully urged to reconsider the rejections set forth in the second Office Action and re-allow this application as soon possible.

The Examiner has initially rejected claims 1-12 and 14-16 under 35 U.S.C. 103(a) as being unpatentable over Cata-Groove: Snow Plow Resistant Thermoplastic Marking Material (July 1998) in view of Stowell et al. (US 5,215,402). Both the Cata-Groove and Stowell et al. references were listed in the Applicant's Information Disclosure Statement filed June 19, 2002 and were considered but not deemed to render the claims unpatentable by the first Examiner issuing the first allowance of this application.

The Cata-Groove process is described at page 2 of the Applicant's application where it is described as "a very time consuming procedure" that is "not well suited for forming complicated patterns or covering large surface areas". The Cata-Groove grooves are installed by sawing or grinding into the finished pavement surfaces. This is a very labor-intensive and slow process. Moreover, it is difficult to make very shallow grooves having precisely defined edges using a grinder. The Cata-Groove material is a granulated material packed into 55 pound bags or cardboard containers. (Cata-Groove, sections 2, 3.3, 3.3.1, 3.3.2, and 4.1). The material has no more of a predetermined pattern than sand poured into a bag or box. At the time of application, the Cata-Groove thermoplastic compound is poured into the grooves in a heated state (i.e. between 350 to 420 degrees F.) as explained at page 2, section 3.2.2 of this reference. Accordingly, the thermoplastic compound is molten and free-flowing at the time it is introduced into the grooves, and has no more of a predetermined pattern than water poured from a pitcher.

The Stowell et al. reference relates to a process patented by the Applicant for forming impressions in asphalt surfaces. This process is discussed at page 1 of the Applicant's application. The Stowell et al. process is designed to imprint asphalt to simulate the

appearance of cobblestones or brick. After the template is removed and the asphalt is allowed to harden, a thin layer of cementitious coating may be applied to the imprinted asphalt surface to enhance the brick and mortar effect.

The Examiner has asserted that Cata-Groove discloses the steps set forth in subparagraphs (d), (e) and (f) of claim 1. Claim 1, subparagraph (d) includes the step of "providing a second template having a predetermined pattern at least partially matching the pattern of said first template." Since the Cata-Groove thermoplastic compound is poured into a groove in a molten state, it is clearly not a "second template having a predetermined pattern." On the contrary, it is amorphous and free-flowing and only takes the shape of the grooves that it is poured into *after* application. Cata-Groove, and the asserted combination, fails to disclose the claimed steps. Therefore, even if there were a motivation to combine the teachings of Cata-Groove and Stowell et al, the combined disclosure would not teach all of the steps of the Applicant's method as recited in claim 1. It is therefore submitted that claim 1 is allowable over the Cata-Groove and Stowell et al. references. Indeed, this was the conclusion originally reached by the Patent Office.

Moreover, there is no motivation to combine Stowell and Cata-Groove. The Stowell reference describes a technique for creating a simulated brick or cobblestone pattern in asphalt. Stowell advocates spreading a colored concrete slurry on the impressed asphalt surface to achieve *a brick and mortar or simulated cobblestone effect*. (Stowell, Col. 3, lines 56-67). The Cata-Groove material furthers its role as a pavement marking by taking on noticeable white or yellow colors (Cata-Groove, section 2.1). Such pavement marking colors are selected for their obvious and conspicuous nature and generally are not suitable for simulating cobblestone or brick and mortar. Accordingly, Applicant respectfully submits that there is no motivation to combine the Stowell and Cata-Groove references.

The Examiner also rejected **claims 1, 2, 6-13, 15 and 16** pursuant to 35 U.S.C. 103(a) as unpatentable over the combination of "3M Guidelines for Pavement Marking Applications in Grooved Pavement Surfaces: Information Folder 5.18 Grooving Applications (March 2000)" in view of Stowell et al. The 3M Guidelines, referred to in the Office Action as "3M," include two separate documents, namely "Information Folder 5.18 Grooving Applications" dated April 2002 and "Information Folder 5.8" dated May 2002. The Examiner has applied the 3M documents as references in the rejection of **claims 3-5 and 14** as well.

Both 3M documents are dated after the December 4, 2001 filing date of this application. Neither 3M document is prior art. Accordingly, Applicant respectfully requests withdrawal of the rejections to claims 1-16 in view of the 3M documents.

Further, even if the 3M documents are identical to earlier versions of other 3M documents that are prior art, the 3M documents are deficient in many regards as described in more detail below. As one initial example, the 3M "Information Folder 5.18 Grooving Applications" document describes applying liquid pavement markings into grooves. The liquid pavement markings suffer from the same deficiencies as the Cata-Groove product described above. Liquid is not a template having a predetermined pattern. Rather, the liquid would take the form of the groove only after the liquid enters the groove. The 3M documents also disclose that tape having a pressure-sensitive adhesive may be applied in a groove that was cut with a saw; they do not disclose using such tape in an impression formed by a first template having a predetermined pattern.

Still further, there is no motivation to combine the teachings of the 3M documents and Stowell et al. reference. As mentioned above, the Stowell reference describes a technique for creating a simulated brick or cobblestone pattern in asphalt. Stowell discloses spreading a colored concrete slurry on the impressed asphalt surface to achieve *a brick and mortar or simulated cobblestone effect*. (Stowell, Col. 3, lines 56-67). On the other hand, the 3M liquid suffers the same deficiencies as the Cata-Groove material, and the 3M tape and pre-cut symbols form large road markings (e.g., 'RR' and a large 'X' for a railroad crossing) that look nothing at all like cobblestone or brick and mortar. Instead, the tape and the pre-cut symbols shown in the 3M documents form broad stripes, arrows, and letters. The Applicant respectfully submits that one would not be motivated to insert arrows, letters, or broad stripes into an impression to achieve a brick and mortar or cobblestone appearance.

In the absence of motivation, references cannot be combined. In *In re Fritch*, 972 F.2d 1260, 1265-66 (Fed. Cir. 1992), the Court of the Appeals for the Federal Circuit stated:

'Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings or references can be combined only if there is some suggestion or incentive to do so'. Although

couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious 'modification' of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

The dependent claims specify additional features neither taught nor suggested by the cited references, alone or in combination. For example, with respect to **claims 3 - 5**, claim 3 has been amended to further specify that heating of the second template occurs *after* it is inserted into the impression to fix it in place by causing the second template to bond to the asphalt surface. The cited references do not teach the step of heating a thermoplastic template to fix the template in place *after* it has been placed in a first impression. Rather, the Cata-Groove thermoplastic material is heated to a molten, liquid state *before* it is poured into a groove, while the 3M pavement markings are secured with adhesives.

Regarding **claim 6**, the Examiner asserts that Cata-Groove and 3M disclose a pre-formed thermoplastic grid. Claim 6 has been amended to clarify that the second template is pre-formed *before* it is inserted into the impression. And since the second template is inserted into "said impression," the impression must be formed *before* insertion of the second template in order for there to be a proper antecedent for "said impression." The Cata-Groove product is clearly not *pre-formed* into a grid since it starts as a granulated material with no overall pattern at all, and is poured into a groove in a molten, amorphous and free-flowing state. Likewise, the Examiner states that the 3M material "is contained in a spray gun applicator *and upon application* forms a grid". A granulated or amorphous material such as the Cata-Groove material and 3M liquid that fills a groove *after* application is not pre-formed into a thermoplastic grid *prior to* insertion into an impression.

Similarly, regarding **claim 7**, the Examiner has alleged that the thermoplastic material of Cata-Groove is of a unitary construction in its "finished state." Claim 7 now depends from claim 6. Thus claim 7 clearly relates that a second template is a pre-formed thermoplastic grid of unitary construction *before* it is introduced into the impression formed by the first template. In contrast, the Cata-Groove material exists as a multitude of individual glass beads, the 3M liquid has no form at all, and the 3M pre-cut symbols and tape are not pre-formed as a grid.

Regarding **claim 9**, it is submitted that glass beads or retroreflectors are not “a light source for illuminating said second template.” On the contrary, a retroreflector is a device that redirects incoming light. The retroreflector itself is not a source of light. Regarding claims 10 and 11, there is no disclosure in Cata-Groove that the retroreflective glass beads are fluorescent or luminescent. Similarly, the 3M liquid employs reflectors such as retroreflective beads, but the 3M documents do not teach or suggest a light source, fluorescence, or luminescence.

**Claims 12 and 14** both recite additional features of the second template that has a predetermined pattern. Claim 12 recites that the template has an upper surface that is substantially flush with the asphalt when the second template is fixed in position. Claim 14 instead recites that the upper surface projects above the asphalt. The Cata-Groove material is molten liquid when introduced into the groove and is not a template, let alone a predetermined pattern template with an upper surface. It is further submitted, with respect to claim 12, that when the Cata-Groove material protrudes “at least 30 mils” above the top plane of the pavement surface after application, it would not be understood by a person skilled in the art as being “substantially flush” with the surface of the asphalt.

Regarding **claims 15 - 16**, it is submitted that none of the asserted references teach or suggest a second template that includes a grid of frame elements. In addition, claim 15 adds the limitation that the aforesaid second template comprises a plurality of *pre-formed* frame elements. No cited reference shows this feature.

The Office Action also rejects **claim 13** under 35 U.S.C. 103(a) as being unpatentable over Cata-Groove and Stowell et al. as applied to claim 1, and further in view of Kawasaki. As explained above, the asserted combinations do not disclose a second template, let alone one that is recessed below the surface of the asphalt when fixed in position. Kawasaki does not fill in the gaps. Rather, Kawasaki describes a process including the steps of filling a coloring material into recessed patterns on the surface of a concrete block, allowing the coloring material to solidify, and thereafter grinding the surface of the concrete block to remove excess coloring material to thereby produce a finished concrete product having inlaid patterns. There is no suggestion in Kawasaki, and no suggestion in the asserted combination, that the coloring material could be provided in the form of a second template having a predetermined pattern that is recessed after application.

New claims 17 - 24 have been added. Claims 17 provide that the predetermined pattern of the second template may be decorative. Claim 18 provides that the predetermined pattern may be non-linear. Support for these amendments appears, *inter alia*, at page 7, lines 2 - 3 of the application. Claim 19 provides that the heating of the second template after it is inserted into the impression formed by the first template may be by passing a portable heater over an upper surface of the second template. Support for this amendment appears at page 8, lines 14 - 21.

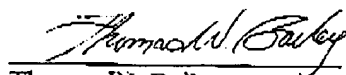
Claim 20 is a new independent claim. None of the cited references, alone or in combination, teach or suggest the invention recited in claim 20. New claims 21 - 24 add additional limitations to claim 20.

In summary, it is submitted that the Applicant's current claims are patentable over the cited references. Accordingly, the Applicant respectfully requests withdrawal of the rejections and re-allowance of this application as soon as possible. The Applicant requests that the previously submitted issue fee be applied for this purpose.

If the Examiner has any questions about this paper, or is not convinced that the claims are in condition for allowance, Applicant requests a personal interview at the earliest possible time.

Respectfully submitted,

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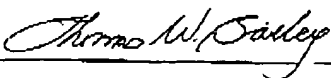
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